

AUTHOR(S): Geronov, I.; Puresheva, B.; Moshtev, R.  
CORPORATE SOURCE: Cent. Lab. Electrochem. Power Sources, Sofia, 1040,  
Bulg.  
SOURCE: Journal of Power Sources (1983), 9(3-4), 273-9  
CODEN: JPSODZ; ISSN: 0378-7753  
DOCUMENT TYPE: Journal  
LANGUAGE: English

=> s l10 and (secondary or rechargeable)  
369574 SECONDARY  
1709 SECONDARIES  
370591 SECONDARY  
(SECONDARY OR SECONDARIES)  
4518 RECHARGEABLE  
1 RECHARGEABLES  
4518 RECHARGEABLE  
(RECHARGEABLE OR RECHARGEABLES)  
L13 1654 L10 AND (SECONDARY OR RECHARGEABLE)

=> d hist

(FILE 'HOME' ENTERED AT 14:53:21 ON 05 SEP 2003)

FILE 'REGISTRY' ENTERED AT 14:53:27 ON 05 SEP 2003  
E LITHIUM PERCHLORATE/CN

FILE 'CAPLUS' ENTERED AT 14:53:51 ON 05 SEP 2003  
S E3

L1 FILE 'REGISTRY' ENTERED AT 14:53:56 ON 05 SEP 2003  
1 S E3/CN

L2 FILE 'CAPLUS' ENTERED AT 14:53:56 ON 05 SEP 2003  
9012 S L1

L3 FILE 'REGISTRY' ENTERED AT 14:54:03 ON 05 SEP 2003  
1 S CALCIUM PERCHLORATE/CN  
E CALCIUM PERCHLORATE/CN

FILE 'CAPLUS' ENTERED AT 14:54:40 ON 05 SEP 2003  
S E3

L4 FILE 'REGISTRY' ENTERED AT 14:54:45 ON 05 SEP 2003  
1 S E3/CN

L5 FILE 'CAPLUS' ENTERED AT 14:54:46 ON 05 SEP 2003  
578 S L4

FILE 'REGISTRY' ENTERED AT 14:54:53 ON 05 SEP 2003  
E BARIUM PERCHLORATE/CN

FILE 'CAPLUS' ENTERED AT 14:55:15 ON 05 SEP 2003  
S E3

L6 FILE 'REGISTRY' ENTERED AT 14:55:20 ON 05 SEP 2003  
1 S E3/CN

L7 FILE 'CAPLUS' ENTERED AT 14:55:21 ON 05 SEP 2003  
638 S L6

FILE 'REGISTRY' ENTERED AT 14:55:28 ON 05 SEP 2003

FILE 'REGISTRY' ENTERED AT 14:59:13 ON 05 SEP 2003

E ALUMINUM PERCHLORATE/CN

FILE 'CAPLUS' ENTERED AT 14:59:43 ON 05 SEP 2003  
S E3

L8 FILE 'REGISTRY' ENTERED AT 14:59:50 ON 05 SEP 2003  
1 S E3/CN

L9 FILE 'CAPLUS' ENTERED AT 14:59:51 ON 05 SEP 2003  
237 S L8  
L10 9863 S L2 OR L5 OR L7 OR L9  
L11 456 S L10 AND PRIMARY AND BATTERY  
L12 3 S L11 AND PPM  
L13 1654 S L10 AND (SECONDARY OR RECHARGEABLE)

L12 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2003 ACS on STN

AB The nonaq. **battery** uses a MnO<sub>2</sub> or fluorinated C cathode, a nonaq. electrolyte, and an anode composed of Li contg. 200-1000 ppm Ca. The addn. of Ca improves the **battery** operation at low temp. Thus, **batteries** were constructed using a Li anode contg. 214-1260 ppm Ca, a MnO<sub>2</sub> cathode, and 1M LiClO<sub>4</sub> in a propylene carbonate/1,2-dimethoxyethane mixt. All the **batteries** showed approx. 2.45 V closed-circuit voltage at -10.degree., while the **batteries** having an anode with lower Ca contents showed 2.30-2.32 V. The **battery** having an anode contg. 1260 ppm Ca showed a decreased discharge capacity.

ACCESSION NUMBER: 1985:193969 CAPLUS  
DOCUMENT NUMBER: 102:193969  
TITLE: Nonaqueous **battery**  
PATENT ASSIGNEE(S): Sendai Seimitsu Zairyo Kenkyusho, Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 60012664	A2	19850123	JP 1983-119994	19830630
PRIORITY APPLN. INFO.:			JP 1983-119994	19830630

L12 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2003 ACS on STN

AB The Li-FeS **battery** has a flat discharge profile for good voltage regulation and excellent capacity retention during storage. The cathode consists of a pellet contg. FeS 85, Zn 10.3, and S 4.7 wt.% that has been heat treated, a Li anode that was surface alloyed with an Al-Mg alloy during cell assembly, and a LiClO<sub>4</sub> electrolyte in 50 wt.% propylene carbonate-50 wt.% 1,2-diethoxyethane contg. H<sub>2</sub>O <50 ppm. An AlCl<sub>3</sub> additive is effective in reducing the open-circuit voltage. The Li-FeS **battery** does swell during discharge with the formation of Fe and Li<sub>2</sub>S from FeS.

ACCESSION NUMBER: 1984:600129 CAPLUS  
DOCUMENT NUMBER: 101:200129  
TITLE: The lithium/iron sulfide watch cell  
AUTHOR(S): Ekern, Ronald J.; Fleischer, Niles A.; Johnson, Dennis P.; Aker, Wesley E.; Margalit, Nehemiah  
CORPORATE SOURCE: Rayovac Corp., Madison, WI, 53711, USA  
SOURCE: Progress in Batteries & Solar Cells (1984), 5, 87-90  
CODEN: PBASDR; ISSN: 0198-7259  
DOCUMENT TYPE: Journal  
LANGUAGE: English

L12 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2003 ACS on STN

AB The growth of the passive film on **battery**-anode Li in MeCN-SO<sub>2</sub> solns. of LiBr, LiAsF<sub>6</sub>, LiAlCl<sub>4</sub>, and LiClO<sub>4</sub> with time was followed by galvanostatic pulse measurements and SEM observations. The specific cond. of the **primary** films on Li in MeCN-SO<sub>2</sub>-LiBr solns. is practically insensitive to changes in the concn. of SO<sub>2</sub> and LiBr. The substitution of Br- by AsF<sub>6</sub>- in MeCN-SO<sub>2</sub> electrolytes significantly changes the properties of the film; the rate of growth and the steady-state value of the polarization resistance are much higher, compared with those of films obtained on Li in Br--contg. electrolytes. Water contamination at >1000 ppm enhances the growth of the passive film, compared with that in dry electrolytes.

ACCESSION NUMBER: 1983:408290 CAPLUS  
DOCUMENT NUMBER: 99:8290  
TITLE: Surface films on lithium in acetonitrile-sulfur dioxide solutions

	Type	Hits	Search Text	DBs
1	BRS	1060	429/188,199,319,344.ccls.	USPAT; US-PGPUB
2	BRS	3	licl adj o?sub.4	USPAT; US-PGPUB
3	BRS	3	caclo?sub.4	USPAT; US-PGPUB
4	BRS	72418 4	ca(clo?sub.4)?sub.2	USPAT; US-PGPUB
5	BRS	278	ca adj (clo?sub.4)?sub.2	USPAT; US-PGPUB
6	BRS	0	ca adj "(clo?sub.4)?sub.2"	USPAT; US-PGPUB
7	BRS	3014	liclo?sub.4	USPAT; US-PGPUB
8	BRS	3263	(clo?sub.4)?sub.2	USPAT; US-PGPUB
9	BRS	72418 4	ca(clo?sub.4)?sub.2	USPAT; US-PGPUB
10	BRS	278	ca adj (clo?sub.4)?sub.2	USPAT; US-PGPUB
11	BRS	0	ca adj (clo?sub.4) adj ?sub.2	USPAT; US-PGPUB
12	BRS	7505	ca?sub.\$	USPAT; US-PGPUB
13	BRS	3059	clo?sub.4	USPAT; US-PGPUB
14	BRS	0	ca?sub.\$ near clo?sub.4	USPAT; US-PGPUB
15	BRS	0	ca?sub.\$ adj clo?sub.4	USPAT; US-PGPUB
16	BRS	0	ca?sub.?cl?sub.?o?sub.?	USPAT; US-PGPUB
17	BRS	0	"ca(clo.sub.4 ).sub.2"	USPAT; US-PGPUB
18	BRS	0	"ca(clo.sub.4).sub.2"	USPAT; US-PGPUB
19	BRS	0	"ca(clo?sub.4)"?sub.2	USPAT; US-PGPUB
20	BRS	72418 4	ca(clo?sub.4)?sub.2	USPAT; US-PGPUB
21	BRS	0	ca adj clo?sub.4?sub.2	USPAT; US-PGPUB
22	BRS	0	ca?clo?sub.4?sub.2	USPAT; US-PGPUB
23	BRS	0	ca?clo?sub.4?sub.2	USPAT; US-PGPUB
24	BRS	0	ba?clo?sub.4?sub.2	USPAT; US-PGPUB
25	BRS	0	ba\$1clo?sub.4\$1sub.2	USPAT; US-PGPUB

	Type	Hits	Search Text	DBs
26	BRS	0	"(liclo?sub.4"	USPAT; US-PGPUB
27	BRS	0	ba?clo?sub.4??sub.2	USPAT; US-PGPUB
28	BRS	0	ba??clo?sub.4??sub.2	USPAT; US-PGPUB
29	BRS	0	ba??clo?sub.4??	USPAT; US-PGPUB
30	BRS	0	ba?clo?sub.4??	USPAT; US-PGPUB
31	BRS	0	ba?clo?sub.4?	USPAT; US-PGPUB
32	BRS	74	"ca clo.sub.4"	USPAT; US-PGPUB
33	BRS	0	"ca clo.sub.4 .sub.2"	USPAT; US-PGPUB
34	BRS	0	"ca clo.sub.4 .sub.2"	USPAT; US-PGPUB
35	BRS	70	"ba clo.sub.4"	USPAT; US-PGPUB
36	BRS	39	"al clo.sub.4"	USPAT; US-PGPUB
37	BRS	147	"ca clo.sub.4" "ba clo.sub.4" "al clo.sub.4"	USPAT; US-PGPUB
38	BRS	3111	liclo?sub.4 ("ca clo.sub.4" "ba clo.sub.4" "al clo.sub.4")	USPAT; US-PGPUB
39	BRS	2343	(liclo?sub.4 ("ca clo.sub.4" "ba clo.sub.4" "al clo.sub.4")) and (secondary rechargeable)	USPAT; US-PGPUB
40	BRS	768	(liclo?sub.4 ("ca clo.sub.4" "ba clo.sub.4" "al clo.sub.4")) not ((liclo?sub.4 ("ca clo.sub.4" "ba clo.sub.4" "al clo.sub.4")) and (secondary rechargeable))	USPAT; US-PGPUB
41	BRS	7352	mno?sub.2	USPAT; US-PGPUB
42	BRS	150	((liclo?sub.4 ("ca clo.sub.4" "ba clo.sub.4" "al clo.sub.4")) not ((liclo?sub.4 ("ca clo.sub.4" "ba clo.sub.4" "al clo.sub.4")) and (secondary rechargeable))) and mno?sub.2	USPAT; US-PGPUB

	Type	Hits	Search Text	DBs
43	BRS	34	((((liclo?sub.4 ("ca clo.sub.4" "ba clo.sub.4" "al clo.sub.4")) not ((liclo?sub.4 ("ca clo.sub.4" "ba clo.sub.4" "al clo.sub.4")) and (secondary rechargeable))) and mno?sub.2) and primary)	USPAT; US-PGPUB
44	BRS	10	((((liclo?sub.4 ("ca clo.sub.4" "ba clo.sub.4" "al clo.sub.4")) not ((liclo?sub.4 ("ca clo.sub.4" "ba clo.sub.4" "al clo.sub.4")) and (secondary rechargeable))) and mno?sub.2) and primary)	USPAT; US-PGPUB
45	BRS	17585	primary adj3 (battery cell)	USPAT; US-PGPUB
46	BRS	642	(liclo?sub.4 ("ca clo.sub.4" "ba clo.sub.4" "al clo.sub.4")) and (primary adj3 (battery cell))	USPAT; US-PGPUB
47	BRS	228	mno?sub.2 and ((liclo?sub.4 ("ca clo.sub.4" "ba clo.sub.4" "al clo.sub.4")) and (primary adj3 (battery cell)))	USPAT; US-PGPUB
48	BRS	70	(mno?sub.2 and ((liclo?sub.4 ("ca clo.sub.4" "ba clo.sub.4" "al clo.sub.4")) and (primary adj3 (battery cell)))) and ppm	USPAT; US-PGPUB
49	BRS	4007	anode with lithium	USPAT; US-PGPUB
50	BRS	39	((mno?sub.2 and ((liclo?sub.4 ("ca clo.sub.4" "ba clo.sub.4" "al clo.sub.4")) and (primary adj3 (battery cell)))) and ppm) and (anode with lithium)	USPAT; US-PGPUB

	Type	Hits	Search Text	DBs
51	BRS	2	("ca clo.sub.4" "ba clo.sub.4" "al clo.sub.4") and ((mno?sub.2 and ((liclo?sub.4 ("ca clo.sub.4" "ba clo.sub.4" "al clo.sub.4")) and (primary adj3 (battery cell)))) and ppm) and (anode with lithium))	USPAT; US-PGPUB
52	BRS	0	"ca clo?sub.4"	USPAT; US-PGPUB
53	BRS	22	("ca clo.sub.4" "ba clo.sub.4" "al clo.sub.4") with	USPAT; US-PGPUB
54	BRS	8	((("ca clo.sub.4" "ba clo.sub.4" "al clo.sub.4") with electrolyte) and (primary adj3 (battery cell))	USPAT; US-PGPUB